REMARKS

It is respectfully requested that this Preliminary

Amendment be entered in this application prior to examination.

Early and favorable consideration is requested.

Respect fully submitted

Leopold Presser
Registration No. 19,82

SCULLY, SCOTT, MURPHY & PRESSER 400 Garden City Plaza Garden City, New York 11530 (516) 742-4343

LP:ae

SEQUENCE LISTING

```
<110> Hilton, Douglas J.
      Nicola, Nicos A.
      Farley, Alison
      Wilson, Tracy
      Zhang, Jian-Guo
      Alexander, Warren
      Rakar, Steven
      Fabri, Louis
      Kojima, Tetsuo
      Maeda, Masatsugu
      Kikuchi, Yasufumi
      Nash, Andrew
<120> A NOVEL HAEMPOIETIN RECEPTOR AND GENETIC SEQUENCES
      ENCODING SAME
<130> DAVIES COLLISON CAVE (CIP)
<140> 09/037,657
<141> 1998-03-10
<150> 08/928,720
<151> 1997-09-11
<160> 54
<170> PatentIn Ver. 2.0
<210> 1
<211> 5
<212> PRT
<213> Unknown
<220>
<221> UNSURE
<222> (3)
<223> Unsure at position 3
<400> 1
Trp Ser Xaa Trp Ser
<210> 2
<211> 24
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence: M116 probe
<400> 2
```

actcgctcca gattcccgcc tttt

B¹

24

<210> 3 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence:M108 probe	
<400> 3 tcccgccttt ttcgacccat agat	24
<210> 4 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence:M159 probe	
<400> 4 ggtacttggc ttggaagagg aaat	24
<210> 5 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence:M242 probe	
<400> 5 cggctcacgt gcacgtcggg tggg	24
<210> 6 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence:M112 probe	
<400> 6 agctgctgtt aaagggcttc tc	22
<210> 7 <211> 15 <212> DNA <213> Unknown	•
<220> <223> Description of Unknown Organism:Unsure	
<220>	



```
<221> unsure
<222> (1)
<223> Unsure at position 1
<220>
<221> unsure
<222> (7)
<223> Unsure at position 7
<220>
<221> unsure
<222> (10)
<223> Unsure at position 10
<400> 7
rctccartcr ctcca
                                                                    15
<210> 8
<211> 15
<212> DNA
<213> Unknown
<220>
<223> Description of Unknown Organism:Unsure
<220>
<221> unsure
<222> (1)
<223> Unsure at position 1
<220>
<221> unsure
<222> (7)
<223> Unsure at position 7
<220>
<221> unsure
<222> (10)
<223> Unsure at position 10
<400> 8
                                                                    15
rctccaytcr ctcca
<210> 9
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:1944 probe
<400> 9
                                                                    21
```

aagtgtgacc atcatgtgga c

<210> 10 <211> 18 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: 2106 probe <400> 10 18 ggaggtgtta aggaggcg <210> 11 <211> 18 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence:2120 probe <400> 11 18 atgcccgcgg gtcgcccg <210> 12 <211> 1629 <212> DNA <213> Unknown <220> <221> CDS <222> (124)..(1362) <223> Description of Unknown Organism: Murine NR6.1 <400> 12 ggcacgagct tcgctgtccg cgcccagtba cgcgcgtgcg gacccgagcc ccaatctgca 60 eccegeagae tegeceeege eccatacebg egttgeagte acegeeegtt gegegeeace 120 168 ecc atg ecc geg ggt ege eeg ggb ecc gte gee eaa tec geg egg egg Met Pro Ala Gly Arg Pro Gly Pro Val Ala Gln Ser Ala Arg Arg ccg ccg cgg ccg ctg tcc tcg ctg tgg tcg cct ctg ttg ctc tgt gtc 216 Pro Pro Arg Pro Leu Ser Ser Leu Trp Ser Pro Leu Leu Cys Val 20 ctc ggg gtg cct cgg ggc gga tcb gga gcc cac aca gct gta atc agc 264 Leu Gly Val Pro Arg Gly Gly Ser Gly Ala His Thr Ala Val Ile Ser ccc cag gac ccc acc ctt ctc atc ggc tcc tcc ctg caa gct acc tgc 312 Pro Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Gln Ala Thr Cys 50

Salt Salt

野

												Gly ggg				360
												cgc Arg				408
												Gly ggg				456
												ggc Gly				504
												aag Lys 140				552
												tgc Cys				600
												tac Tyr				648
												gag Glu				696
												ctg Leu				744
												cta Leu 220				792
aga Arg	tct Ser 225	gat Asp	gtc Val	ctc Leu	aca Thr	ctg Leu 230	gat Asp	gtc Val	ctg Leu	gac Asp	gtg Val 235	gtg Val	acc Thr	acg Thr	gac Asp	840
												ctg Leu				888
ctg Leu	agt Ser	gtg Val	cgc Arg	tgg Trp 260	gtc Val	tca Ser	cca Pro	cca Pro	gct Ala 265	ctc Leu	aag Lys	gat Asp	ttc Phe	ctc Leu 270	ttc Phe	936
												agc Ser				984
aag	gtg	gtg	gat	gac	gtc	agc	aac	cag	acc	tcc	tgc	cgt	ctc	gcg	ggc	1032

.

```
Lys Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly
        290
                            295
                                                300
ctg aag ccc ggc acc gtt tac ttc gtc caa gtg cgt tgt aac cca ttc
                                                                  1080
Leu Lys Pro Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro Phe
    305
                        310
                                                                  1128
ggg atc tat ggg tcg aaa aag gcg gga atc tgg agc gag tgg agc cac
Gly Ile Tyr Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp Ser His
320
ccc acc gct gcc tcc acc cct cga agt gag cgc ccg ggc ccg ggc
                                                                  1176
Pro Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly Pro Gly Gly
ggg gtg tgc gag ccg cgg ggc ggc gag ccc agc tcg ggc ccg gtg cgg
                                                                  1224
Gly Val Cys Glu Pro Arg Gly Glu Pro Ser Ser Gly Pro Val Arg
            355
                                360
cgc gag ctc aag cag ttc ctc ggc tgg ctc aag aag cac gca tac tgc
                                                                  1272
Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys Lys His Ala Tyr Cys
                            375
tcg aac ctt agt ttc cgc ctg tac gac cag tgg cgt gct tgg atg cag
                                                                  1320
Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln Trp Arg Ala Trp Met Gln
                        390
aag toa cac aag acc cga aac cag gto ctg ccg gct aaa ctc
                                                                  1362
Lys Ser His Lys Thr Arg Asn Gln Val Leu Pro Ala Lys Leu
                    405
taaggatagg ccatcctcct gctgggtcag acctggaggc tcacctgaat tggagcccct 1422
ctgtaccatc tgggcaacaa agaaacctac cagaggctgg ggcacaatga gctcccacaa 1482
ccacagettt ggtecacatg atggteacae ttggatatae eccagtgtgg gtaaggttgg 1542
ggtattqcaq ggcctcccaa caatctcttt aaataaataa aggagttgtt caggtaaaaa 1602
                                                                  1629
aaaaaaaaa aaaaaaaaa aaaaaaa
```

<210> 13

<211> 413

<212> PRT

<213> Unknown

<220>

<223> Description of Unknown Organism: Murine NR6.1

<400> 13

Met Pro Ala Gly Arg Pro Gly Pro Val Ala Gln Ser Ala Arg Arg Pro
1 5 10 15

Pro Arg Pro Leu Ser Ser Leu Trp Ser Pro Leu Leu Cys Val Leu
20 25 30

Gly Val Pro Arg Gly Gly Ser Gly Ala His Thr Ala Val Ile Ser Pro Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Gln Ala Thr Cys Ser Ile His Gly Asp Thr Pro Gly Ala Thr Ala Glu Gly Leu Tyr Trp Thr Leu Asn Gly Arg Arg Leu Pro Ser Glu Leu Ser Arg Leu Leu Asn Thr Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly Ser Arg Gln Gln 105 Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp Gly Ser Ile Leu Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro Glu Lys Pro Phe Asn Ile Ser Cys Trp Ser Arg Asn Met Lys Asp Leu Thr Cys Arg Trp Thr Pro 150 Gly Ala His Gly Glu Thr Phe Leu His Thr Asn Tyr Ser Leu Lys Tyr 170 Lys Leu Arg Trp Tyr Gly Gln Asp Asn Thr Cys Glu Glu Tyr His Thr Val Gly Pro His Ser Cys His Ile Pro Lys Asp Leu Ala Leu Phe Thr 200 Pro Tyr Glu Ile Trp Val Glu Ala Thr Asn Arg Leu Gly Ser Ala Arg 210 215 Ser Asp Val Leu Thr Leu Asp Val Leu Asp Val Val Thr Thr Asp Pro 235 230 Pro Pro Asp Val His Val Ser Arg Val Gly Gly Leu Glu Asp Gln Leu 255 Ser Val Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe Gln Ala Lys Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp Lys 280 Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly Leu Lys Pro Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro Phe Gly 315 Ile Tyr Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp Ser His Pro

340 345 350 Val Cys Glu Pro Arg Gly Gly Glu Pro Ser Ser Gly Pro Val Arg Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys Lys His Ala Tyr Cys Ser 370 Asn Leu Ser Phe Arg Leu Tyr Asp Gln Trp Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln Val Leu Pro Ala Lys Leu <210> 14 <211> 1673 <212> DNA <213> Unknown <220> <221> CDS <222> (125)..(1399) <220> <223> Description of Unknown Organism: Murine NR6.2 <400> 14 ggcacgaget tegetgteeg egeceagtga egegegtgeg gaeeegagee eeaatetgea 60 eccequagae tequececque eccatacego eqttquagte accqueeqtt gegegecace 120 ceca atq eec geg ggt ege eeg gge eec gte gee caa tee geg egg egg Met Pro Ala Gly Arg Pro Gly Pro Val Ala Gln Ser Ala Arg Arg ccg ccg ccg ctg tcc tcg ctg tcg cct ctg ttg ctc tgt gtc 217 Pro Pro Arg Pro Leu Ser Ser Leu Trp Ser Pro Leu Leu Cys Val ctc ggg gtg cct cgg ggc gga tcg gga gcc cac aca gct gta atc agc 265 Leu Gly Val Pro Arg Gly Gly Ser Gly Ala His Thr Ala Val Ile Ser 35 40 ccc cag gac ccc acc ctt ctc atc ggc tcc tcc ctg caa gct acc tgc 313 Pro Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Gln Ala Thr Cys 361 tet ata cat gga gac aca eet ggg gee ace get gag ggg ete tae tgg Ser Ile His Gly Asp Thr Pro Gly Ala Thr Ala Glu Gly Leu Tyr Trp 65 409 acc ctc aat ggt cgc cgc ctg ccc tct gag ctg tcc cgc ctc ctt aac Thr Leu Asn Gly Arg Arg Leu Pro Ser Glu Leu Ser Arg Leu Leu Asn 95 80 85 90

Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly Pro Gly Gly Gly

													tcc Ser			457
													agc Ser 125			505
													ccc Pro			553
													cgc Arg			601
													tcc Ser			649
													gag Glu			697
													gcc Ala 205			745
													ggc Gly			793
													acc Thr			841
													gag Glu			889
													ttc Phe			937
													gtg Val 285			985
													ctc Leu			1033
													aac Asn			1081
ıgg	atc	tat	ggg	tcg	aaa	aag	gcg	gga	atc	tgg	agc	gag	tgg	agc	cac	1129 .

Gly Ile Tyr (Gly Ser Lys 325	Lys Ala Gly	Ile Trp S 330	er Glu Trp	Ser His 335	
ccc acc gct of Pro Thr Ala						1177
ggg gtg tgc (Gly Val Cys (1225
cgc gag ctc a Arg Glu Leu 3						1273
tcg aac ctt a Ser Asn Leu 3 385			Gln Trp A			1321
aag tca cac a Lys Ser His 1 400	aag acc cga Lys Thr Arg 405	aac cag gac Asn Gln Asp	gag ggg a Glu Gly I 410	tc ctg cct le Leu Pro	tcg ggc Ser Gly 415	1369
aga cgg ggt o Arg Arg Gly				tctaa ggata	aggcca	1419
tectectget ge	ggtcagacc to	ggaggetea eet	gaattgg a	gcccctctg t	accatctgg	1479
gcaacaaaga a	acctaccag aq	ggctggggc aca	aatgagct c	ccacaacca c	cagctttggt	1539
ccacatgatg g	tcacacttg ga	atatacccc agt	gtgggta a	ggttggggt a	attgcagggc	1599
ctcccaacaa t	ctctttaaa ta	aaataaagg agt	tgttcag g	taaaaaaaa a	aaaaaaaaa	1659
aaaaaaaaaa a	aaa					1673

<210> 15

<211> 425

<212> PRT

<213> Unknown

<220>

<223> Description of Unknown Organism: Murine NR6.2

<400> 15

Met Pro Ala Gly Arg Pro Gly Pro Val Ala Gln Ser Ala Arg Arg Pro 1 5 10 15

Pro Arg Pro Leu Ser Ser Leu Trp Ser Pro Leu Leu Cys Val Leu 20 25 30

Gly Val Pro Arg Gly Gly Ser Gly Ala His Thr Ala Val Ile Ser Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Gln Ala Thr Cys Ser

Ile 65	His	Gly	Asp	Thr	Pro 70	Gly	Ala	Thr	Ala	Glu 75	Gly	Leu	Tyr	Trp	Thr 80
Leu	Asn	Gly	Arg	Arg 85	Leu	Pro	Ser	Glu	Leu 90	Ser	Arg	Leu	Leu	Asn 95	Thr
Ser	Thr	Leu	Ala 100	Leu	Ala	Leu	Ala	Asn 105	Leu	Asn	Gly	Ser	Arg 110	Gln	Gln
Ser	Gly	Asp 115	Asn	Leu	Val	Суз	His 120	Ala	Arg	Asp	Gly	Ser 125	Ile	Leu	Ala
Gly	Ser 130	Cys	Leu	Tyr	Val	Gly 135	Leu	Pro	Pro	Glu	Lys 140	Pro	Phe	Asn	Ile
Ser 145	Cys	Trp	Ser	Arg	Asn 150	Met	Lys	Asp	Leu	Thr 155	Cys	Arg	Trp	Thr	Pro 160
Gly	Ala	His	Gly	Glu 165	Thr	Phe	Leu	His	Thr 170	Asn	Tyr	Ser	Leu	Lys 175	Tyr
Lys	Leu	Arg	Trp 180	Tyr	Gly	Gln	Asp	Asn 185	Thr	Cys	Glu	Glu	Tyr 190	His	Thr
Val	Gly	Pro 195	His	Ser	Cys	His	Ile 200	Pro	Lys	Asp	Leu	Ala 205	Leu	Phe	Thr
Pro	Tyr 210	Glu	Ile	Trp	Val	Glu 215	Ala	Thr	Asn	Arg	Leu 220	Gly	Ser	Ala	Arg
Ser 225	Asp	Val	Leu	Thr	Leu 230	Asp	Val	Leu	Asp	Val 235	Val	Thr	Thr	Asp	Pro 240
Pro	Pro	Asp	Val	His 245	Val	Ser	Arg	Val	Gly 250	Gly	Leu	Glu	Asp	Gln 255	Leu
Ser	Val	Arg	Trp 260	Val	Ser	Pro	Pro	Ala 265	Leu	Lys	Asp	Phe	Leu 270	Phe	Gln
Ala	Lys	Tyr 275	Gln	Ile	Arg	Tyr	Arg 280	Val	Glu	Asp	Ser	Va1 285	Asp	Trp	Lys
Val	Val 290	Asp	Asp	Val	Ser	Asn 295	Gln	Thr	Ser	Cys	Arg 300	Leu	Ala	Gly	Leu
Lys 305	Pro	Gly	Thr	Val	Tyr 310	Phe	Val	Gln	Val	Arg 315	Cys	Asn	Pro	Phe	Gly 320
Ile	Tyr	Gly	Ser	Lys 325	Lys	Ala	Gly	Ile	Trp 330	Ser	Glu	Trp	Ser	His 335	Pro
Thr	Ala	Ala	Ser 340	Thr	Pro	Arg	Ser	Glu 345	Arg	Pro	Gly	Pro	Gly 350	Gly	Gly
Va1	Cvs	Glu	Pro	Ara	Glv	Glv	Glu	Pro	Ser	Ser	Glv	Pro	Va1	Ara	Ara

Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys Lys His Ala Tyr Cys Ser 370 375 380	
Asn Leu Ser Phe Arg Leu Tyr Asp Gln Trp Arg Ala Trp Met Gln Lys 385 390 395 400	
Ser His Lys Thr Arg Asn Gln Asp Glu Gly Ile Leu Pro Ser Gly Arg 405 410 415	
Arg Gly Ala Ala Arg Gly Pro Ala Gly 420 425	
<210> 16 <211> 938 <212> DNA <213> Unknown	
<220> <221> CDS <222> (1)(465)	
<220> <223> Description of Unknown Organism: Murine NR6.3	
<pre><400> 16 ggc acc gtt tac ttc gtc caa gtg cgt tgt aac cca ttc ggg atc tat</pre>	·
ggg tcg aaa aag gcg gga atc tgg agc gag tgg agc cac ccc acc gct 96 Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp Ser His Pro Thr Ala 20 25 30	
gcc tcc acc cct cga agt gag cgc ccg ggc ccg ggc ggc ggg gtg tgc 144 Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly Pro Gly Gly Gly Val Cys 35 40 45	1
gag ccg cgg ggc ggc gag ccc agc tcg ggc ccg gtg cgg cgc gag ctc 192 Glu Pro Arg Gly Glu Pro Ser Ser Gly Pro Val Arg Arg Glu Leu 50 55 60	2
aag cag ttc ctc ggc tgg ctc aag aag cac gca tac tgc tcg aac ctt 240 Lys Gln Phe Leu Gly Trp Leu Lys Lys His Ala Tyr Cys Ser Asn Leu 65 70 75 80)
agt ttc cgc ctg tac gac cag tgg cgt gct tgg atg cag aag tca cac 288 Ser Phe Arg Leu Tyr Asp Gln Trp Arg Ala Trp Met Gln Lys Ser His 85 90 95	3
aag acc cga aac cag gta gga aag ttg ggg gag gct tgc gtg ggg ggt 336 Lys Thr Arg Asn Gln Val Gly Lys Leu Gly Glu Ala Cys Val Gly Gly 100 105 110	5

aaa gga gca gag gaa gag aga gac ccg ggt gag cag cct cca caa cac

Lys Gly Ala Glu Glu Glu Arg Asp Pro Gly Glu Gln Pro Pro Gln His 115 120 125

cgc act ctt ctt tcc aag cac agg acg agg gga tcc tgc cct cgg gca 432 Arg Thr Leu Leu Ser Lys His Arg Thr Arg Gly Ser Cys Pro Arg Ala 130 135 140

gac ggg gtg cgg cga gag gta agg ggg tct ggg tgagtggggc ctacagcagt 485 Asp Gly Val Arg Arg Glu Val Arg Gly Ser Gly 145 150 155

<210> 17

<211> 155

<212> PRT

<213> Unknown

<220>

<223> Description of Unknown Organism: Murine NR6.3

<400> 17

Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro Phe Gly Ile Tyr 1 5 10 15

Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp Ser His Pro Thr Ala 20 25 30

Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly Pro Gly Gly Gly Val Cys
35 40 45

Glu Pro Arg Gly Gly Glu Pro Ser Ser Gly Pro Val Arg Arg Glu Leu
50 55 60

Lys Gln Phe Leu Gly Trp Leu Lys Lys His Ala Tyr Cys Ser Asn Leu 65 70 75 80

Ser Phe Arg Leu Tyr Asp Gln Trp Arg Ala Trp Met Gln Lys Ser His 85 90 95

Lys Thr Arg Asn Gln Val Gly Lys Leu Gly Glu Ala Cys Val Gly Gly 100 105 110

Lys Gly Ala Glu Glu Glu Arg Asp Pro Gly Glu Gln Pro Pro Gln His 115 120 Arg Thr Leu Leu Ser Lys His Arg Thr Arg Gly Ser Cys Pro Arg Ala Asp Gly Val Arg Arg Glu Val Arg Gly Ser Gly 150 <210> 18 <211> 834 <212> DNA <213> Artificial Sequence <220> <221> CDS <222> (1)..(834) <220> <223> Description of Artificial Sequence: Nucleotide sequence of products generated by 5' RACE of brain cDNA using NR6 specific primers <400> 18 48 ccc acc ctt ctc atc ggc tcc tcc ctg caa gct acc tgc tct ata cat Pro Thr Leu Leu Ile Gly Ser Ser Leu Gln Ala Thr Cys Ser Ile His gga gac aca cct ggg gcc acc gct gag ggg ctc tac tgg acc ctc aat 96 Gly Asp Thr Pro Gly Ala Thr Ala Glu Gly Leu Tyr Trp Thr Leu Asn ggt cgc cgc ctg ccc tct gag ctg tcc cgc ctc ctt aac acc tcc acc 144 Gly Arg Arg Leu Pro Ser Glu Leu Ser Arg Leu Leu Asn Thr Ser Thr 35 ctq qcc ctq qcc ctq gct aac ctt aat ggg tcc agg cag tca gga 192 Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly Ser Arg Gln Gln Ser Gly 55 gac aat ctg gtg tgt cac gcc cga gac ggc agc att ctg gct ggc tcc 240 Asp Asn Leu Val Cys His Ala Arg Asp Gly Ser Ile Leu Ala Gly Ser 65 tgc ctc tat gtt ggc ttg ccc cct gag aag ccc ttt aac atc agc tgc 288 Cys Leu Tyr Val Gly Leu Pro Pro Glu Lys Pro Phe Asn Ile Ser Cys tgg tcc cgg aac atg aag gat ctc acg tgc cgc tgg aca ccg ggt gca 336 Trp Ser Arg Asn Met Lys Asp Leu Thr Cys Arg Trp Thr Pro Gly Ala 100 105 cac ggg gag aca ttc tta cat acc aac tac tcc ctc aag tac aag ctg 384 His Gly Glu Thr Phe Leu His Thr Asn Tyr Ser Leu Lys Tyr Lys Leu

120

115

			gag gag tac ca Glu Glu Tyr Hi 140	
ccc cac tca Pro His Ser 145	tgc cat atc Cys His Ile 150	ccc aag gac Pro Lys Asp	ctg gcc ctc tt Leu Ala Leu Ph 155	c act ccc tat 480 e Thr Pro Tyr 160
gag atc tgg Glu Ile Trp	gtg gaa gcc Val Glu Ala 165	acc aat cgc Thr Asn Arg	cta ggc tca gc Leu Gly Ser Al 170	a aga tct gat 528 a Arg Ser Asp 175
			gtg acc acg ga Val Thr Thr As	
			ctg gag gac ca Leu Glu Asp Gl 20	n Leu Ser Val
			gat ttc ctc tt Asp Phe Leu Ph 220	
			agc gtg gac tg Ser Val Asp Tr 235	
			cgt ctc gcg gg Arg Leu Ala Gl 250	
Gly Thr Val			tgt aac cca tt Cys Asn Pro Ph	
ggg tcg aaa Gly Ser Lys 275				834
<210> 19 <211> 278 <212> PRT <213> Artifi	cial Sequenc	ce		
<220> <223> Descri	ption of Art	tificial Sequ	ence: Haemopo	ietin receptor
<400> 19 Pro Thr Leu 1	Leu Ile Gly 5	Ser Ser Leu	Gln Ala Thr Cy 10	s Ser Ile His 15
Gly Asp Thr	Pro Gly Ala 20	Thr Ala Glu 25	Gly Leu Tyr Tr	p Thr Leu Asn 30

Gly Arg Arg Leu Pro Ser Glu Leu Ser Arg Leu Leu Asn Thr Ser Thr

35 40 45

Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly Ser Arg Gln Gln Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp Gly Ser Ile Leu Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro Glu Lys Pro Phe Asn Ile Ser Cys Trp Ser Arg Asn Met Lys Asp Leu Thr Cys Arg Trp Thr Pro Gly Ala 100 105 His Gly Glu Thr Phe Leu His Thr Asn Tyr Ser Leu Lys Tyr Lys Leu 120 Arg Trp Tyr Gly Gln Asp Asn Thr Cys Glu Glu Tyr His Thr Val Gly Pro His Ser Cys His Ile Pro Lys Asp Leu Ala Leu Phe Thr Pro Tyr 150 155 Glu Ile Trp Val Glu Ala Thr Asn Arg Leu Gly Ser Ala Arg Ser Asp Val Leu Thr Leu Asp Val Leu Asp Val Val Thr Thr Asp Pro Pro Pro Asp Val His Val Ser Arg Val Gly Gly Leu Glu Asp Gln Leu Ser Val Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe Gln Ala Lys 215 Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp Lys Val Val 230 235 240 225 Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly Leu Lys Pro 250 Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro Phe Gly Ile Tyr 270 260 265

Gly Ser Lys Lys Ala Gly 275

<210> 20

<211> 143

<212> DNA

<213> Artificial Sequence

<220>

<221> CDS

<222> (105)..(143)

<220> <223> Description of Artificial Sequence: Nucleotide sequence unique to 5' RACE of brain cDNA ggcatgaagg cttagggtgg ggatcggtag gacccatqca cccaqagaaa gggactggtg 60 gcaactttca aactctctgg ggaaggaaga agggctgaaa gagg atg aac ggg ctc Met Asn Gly Leu 1 aga cac agc tgt aat cag ccc cca gga Arg His Ser Cys Asn Gln Pro Pro Gly <210> 21 <211> 13 <212> PRT <213> Artificial Sequence <220>

143

<400> 21 Met Asn Gly Leu Arg His Ser Cys Asn Gln Pro Pro Gly

by Nucleotide sequence unique to 5' RACE of brain cDNA

<210> 22 <211> 1930 <212> DNA <213> Unknown <220>

. . . .

<223> Description of Unknown Organism: Murine NR6

<400> 22 ggcacgagct tcgctgtccg cgcccagtga cgcgcgtgcg gacccgagcc ccaatctgca 60 ccccgcagac tcgccccgc cccataccgg cgttgcagtc accgcccgtt gcgcgccacc 120 cccaatgccc gcgggtcgcc cgggccccgt cgcccaatcc gcgcggcggc cgccgcggcc 180 gctgtcctcg ctgtggtcgc ctctgttgct ctgtgtcctc ggggtgcctc ggggcggatc 240 gggagcccac acagctgtaa tcagccccca ggaccccacc cttctcatcg gctcctccct 300 gcaagctacc tgctctatac atggagacac acctggggcc accgctgagg ggctctactg 360 qaccetcaat ggtegeegee tgeeetetga getgteeege eteettaaca eeteeaceet 420 ggccctggcc ctggctaacc ttaatgggtc caggcagcag tcaggagaca atctggtgtg 480 tcacgcccga gacggcagca ttctggctgg ctcctgcctc tatgttggct tgccccctga 540

<223> Description of Artificial Sequence: Amino Acid Sequence encoded

-17-

```
gaagecettt aacateaget getggteeeg gaacatgaag gateteaegt geegetggae 600
accgggtgca cacggggaga cattettaca taccaactae teceteaagt acaagetgag 660
gtggtacggt caggataaca catgtgagga gtaccacact gtgggccctc actcatgcca 720
tatccccaaq gacctggccc tcttcactcc ctatgagatc tgggtggaag ccaccaatcg 780
cctaggctca gcaagatctg atgtcctcac actggatgtc ctggacgtgg tgaccacgga 840
cccccaccc gacgtgcacg tgagccgcgt tgggggcctg gaggaccagc tgagtgtgcg 900
ctgggtctca ccaccagctc tcaaggattt cctcttccaa gccaagtacc agatccgcta 960
ccgcgtggag gacagcgtgg actggaaggt ggtggatgac gtcagcaacc agacctcctg 1020
ccgtctcgcg ggcctgaagc ccggcaccgt ttacttcgtc caagtgcgtt gtaacccatt 1080
cgggatctat gggtcgaaaa aggcgggaat ctggagcgag tggagccacc ccaccgctgc 1140
ctccaccct cgaagtgagc gcccgggccc gggcggcggg gtgtgcgagc cgcggggcgg 1200
cgagcccagc tcgggcccgg tgcggcgcga gctcaagcag ttcctcggct ggctcaagaa 1260
gcacgcatac tgctcgaacc ttagtttccg cctgtacgac cagtggcgtg cttggatgca 1320
gaagtcacac aagacccgaa accaggtagg aaagttgggg gaggcttgcg tggggggtaa 1380
aggagcagag gaagagagag accegggtga geageeteea eaacacegea etettette 1440 \cdot
caagcacagg acgaggggat cctgccctcg ggcagacggg gtgcggcgag aggtaagggg 1500
qtctqqqtqa qtqqqqccta caqcaqtcta gatqaqqccc tttcccctcc ttcgqtqttg 1560
ctcaaaggga tctcttagtg ctcatttcac ccactgcaaa gagccccagg ttttactgca 1620
tcatcaagtt gctgaagggt ccaggcttaa tgtggcctct tttctgccct caggtcctgc 1680
cggctaaact ctaaggatag gccatcctcc tgctgggtca gacctggagg ctcacctgaa 1740 🕟
ttqqaqcccc tctqtaccta tctgggcaac aaagaaacct accatgaggc tggggcacaa 1800
tgagctccca caaccacagc tttggtccac atgatggtca cacttggata taccccagtg 1860
tgggtaaggt tggggtattg cagggcctcc caacaatctc tttaaataaa taaaggagtt 1920
                                                                  1930
gttcaggtaa
```

<210> 23

<211> 560

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR product for human NR6

```
<400> 23
tocaggoage ggtegggga caacetegtg tgecaegeee gtgaeggeag cateetgget 60
ggctcctgcc tctatgttgg cctgcccca gagaaacccg tcaacatcag ctgctggtcc 120
aaqaacatga aggacttgac ctgccgctgg acgccagggg cccacgggga gaccttcctc 180
cacaccaact actccctcaa gtacaagctt aggtggtatg gccaggacaa cacatgtgag 240
gagtaccaca cagtggggcc ccactcctgc cacatcccca aggacctggc tctctttacg 300
ccctatgaga tctgggtgga ggccaccaac cgcctgggct ctgcccgctc cgatgtactc 360
acgctggata tcctggatgt ggtgaccacg gaccccccgc ccgacgtgca cgtgagccgc 420
qtcqqqqqcc tqqaqqacca gctqaqcqtq cqctqqqtqt cqccacccqc cctcaaqqat 480
ttcctttttc aagccaaata ccagatccgc taccgagtgg aggacagtgt ggaatggaag 540
                                                                   560
gtggtggacg atgtgagcaa
<210> 24
<211> 1391
<212> DNA
<213> Unknown
<220>
<221> CDS
<222> (1)..(1050)
<220>
<223> Description of Unknown Organism: Nucleotide
      sequence of clone HFK-66 encoding human NR6
                                                                   48
acc ctc aac ggg cgc cgc ctg ccc cct gag ctc tcc cgt gta ctc aac
Thr Leu Asn Gly Arg Arg Leu Pro Pro Glu Leu Ser Arg Val Leu Asn
                                                         15
gcc tcc acc ttg gct ctg gcc ctg gcc aac ctc aat ggg tcc agg cag
                                                                   96
Ala Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly Ser Arg Gln
             20
                                                                   144
egg teg ggg gae aac ete gtg tge eac gee egt gae gge age ate etg
Arg Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp Gly Ser Ile Leu
         35
                                                                   192
gct ggc tcc tgc ctc tat gtt ggc ctg ccc cca gag aaa ccc gtc aac
Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro Glu Lys Pro Val Asn
     50
                                                                   240
atc age tgc tgg tcc aag aac atg aag gac ttg acc tgc cgc tgg acg
Ile Ser Cys Trp Ser Lys Asn Met Lys Asp Leu Thr Cys Arg Trp Thr
65
```

288

cca ggg gcc cac ggg gag acc ttc ctc cac acc aac tac tcc ctc aag

Pro	Gly	Ala	His	Gly 85	Glu	Thr	Phe	Leu	His 90	Thr	Asn	Tyr	Ser	Leu 95	Lys	
		ctt Leu														336
		ggg Gly 115														384
		tat Tyr														432
		gat Asp														480
		ccc Pro														528
ctg Leu	agc Ser	gtg Val	cgc Arg 180	tgg Trp	gtg Val	tcg Ser	cca Pro	ccc Pro 185	gcc Ala	ctc Leu	aag Lys	gat Asp	ttc Phe 190	ctc Leu	ttt Phe	576
		aaa Lys 195														624
aag Lys	gtg Val 210	gtg Val	gac Asp	gat Asp	gtg Val	agc Ser 215	aac Asn	cag Gln	acc Thr	tcc Ser	tgc Cys 220	cgc Arg	ctg Leu	gcc Ala	ggc Gly	672
ctg Leu 225	aaa Lys	ccc Pro	ggc Gly	acc Thr	gtg Val 230	tac Tyr	ttc Phe	gtg Val	caa Gln	gtg Val 235	cgc Arg	tgc Cys	aac Asn	ccc Pro	ttt Phe 240	720
ggc Gly	atc Ile	tat Tyr	ggc Gly	tcc Ser 245	aag Lys	aaa Lys	gcc Ala	ggg Gly	atc Ile 250	tgg Trp	agt Ser	gag Glu	tgg Trp	agc Ser 255	cac His	768
		gcc Ala														816
		tgc Cys 275														864
		ctc Leu														912
		ctc Leu														960

aag tcg cac aag acc cgc aac cag cac agg acg agg gga tcc tgc cct 1008 Lys Ser His Lys Thr Arg Asn Gln His Arg Thr Arg Gly Ser Cys Pro 325 330 335

cgg gca gac ggg gca cgg cga gag gtc ctg cca gat aag ctg 1050 Arg Ala Asp Gly Ala Arg Arg Glu Val Leu Pro Asp Lys Leu 340 345 350

<210> 25

<211> 350

<212> PRT

<213> Unknown

<220>

<223> Description of Unknown Organism: Haemopoietin receptor

<400> 25

Thr Leu Asn Gly Arg Arg Leu Pro Pro Glu Leu Ser Arg Val Leu Asn 1 5 10 15

Ala Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly Ser Arg Gln
20 25 30

Arg Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp Gly Ser Ile Leu 35 40 45

Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro Glu Lys Pro Val Asn 50 55 60

Ile Ser Cys Trp Ser Lys Asn Met Lys Asp Leu Thr Cys Arg Trp Thr 65 70 75 80

Pro Gly Ala His Gly Glu Thr Phe Leu His Thr Asn Tyr Ser Leu Lys
85 90 95

Tyr Lys Leu Arg Trp Tyr Gly Gln Asp Asn Thr Cys Glu Glu Tyr His 100 105 110

Thr Val Gly Pro His Ser Cys His Ile Pro Lys Asp Leu Ala Leu Phe 115 120 125

Thr Pro Tyr Glu Ile Trp Val Glu Ala Thr Asn Arg Leu Gly Ser Ala

130 135 140

Arg Ser Asp Val Leu Thr Leu Asp Ile Leu Asp Val Val Thr Thr Asp 145 150 155 160

Pro Pro Pro Asp Val His Val Ser Arg Val Gly Gly Leu Glu Asp Gln 165 170 175

Leu Ser Val Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe 180 185 190

Gln Ala Lys Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp 195 200 205

Lys Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly 210 215 220

Leu Lys Pro Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro Phe 225 230 235 240

Gly Ile Tyr Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp Ser His 245 250 255

Pro Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly Pro Gly Gly 260 265 270

Gly Ala Cys Glu Pro Arg Gly Gly Glu Pro Ser Ser Gly Pro Val Arg 275 280 285

Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys Lys His Ala Tyr Cys 290 295 300

Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln Trp Arg Ala Trp Met Gln 305 310 315 320

Lys Ser His Lys Thr Arg Asn Gln His Arg Thr Arg Gly Ser Cys Pro 325 330 335

Arg Ala Asp Gly Ala Arg Arg Glu Val Leu Pro Asp Lys Leu 340 345 350

<210> 26

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:UP1
 Oligonucleotide

<400> 26

tccaggcagc ggtcggggga caac

24

<210> 27

<211> 24

```
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:LP1
      Oligonucleotide
<400> 27
ttgctcacat cgtccaccac cttc
<210> 28
<211> 6663
<212> DNA
<213> Unknown
<220>
<223> Description of Unknown Organism: Murine NR6 gene
<400> 28
cccaqaactc ttggacgctg aggcaggagg attcccaagt ttcaagacag tgtgtttcta 60
ggtaatgaga ccctgtcaag aaaagaaaag aaataaagag acaagaaaat gtttataggc 120
tgtgagacag cttggtgggt aaggggcact tgcctccaat caagatgacc tcagccccat 180
ccctaggaat ccatggtaga aggagaaagc aaactcgcag ctgctgacct ccatacatgt 240
gctccaatgt gcacacacac agggagacat aatcaattaa taggatgtat ttgcttagat 300
```

24

tgtcgtcttt gaccccagac acagctgtaa tcagccccca ggaccccacc cttctcatcg 1200 · gctcctccct gcaagctacc tgctctatac atggagacac acctggggcc accgctgagg 1260 ggctctactg gaccttcaat ggtcgccgcc tgccctctga gctgtcccgc ctccttaaca 1320 cctccaccct ggccctggcc ctggctaacc ttaatgggtc caggcagcag tcaggagaca 1380 atctggtgtg tcacgcccga gacggcagca ttctggctgg ctcctgcctc tatgttggct 1440 gtaagtgggg ccccagacac tcagagatag atgggggttg gcaatgacag atttagagcc 1500 · tgggtcttct gtcctggggc agagccatgg gctctcactt gcatgcaggc atggtcatac 1560 ccagcacagg cattgcaact ctagggacag ctgtggctgc actgtcccct gtgtacccca 1620 cagetttaga aaagetgtea tgtttteett gtagtgeece etgagaagee etttaacate 1680 agetgetggt ceeggaacat gaaggatete aegtgeeget ggacaceggg tgeacaeggg 1740 gagacattet tacataceaa etacteeete aagtacaage tgaggttggt acceageeaa 1800 gccttgctgt gtgacttctg gcaatactta ccttctctga tcaaatatgt tcctgtttat 1860 gaactcaaaa gggactctcg cacctccaca ggtggtacgg tcaggataac acatgtgagg 1920 agtaccacac tgtgggccct cactcatgcc atatccccaa ggacctggcc ctcttcactc 1980 cctatgagat ctgggtggaa gccaccaatc gcctaggctc agcaagatct gatgtcctca 2040 cactggatgt cctggacgtg ggtgagcccc cagtgtccac ctgtgttctg ccctagacct 2100 . tatagggcgc ctcccccca tccccccaga ctttttggtt cttctagagg tcttagccac 2160 agccacggtg gttgcaggac agtggttgtt cataacttaa tgcaaagact ttcccccaag 2220 aacacctggc ctgaccaccc tccctctcta cagcccaggt gttcagaagg gagtcctagg 2340 ggactgagag gaggcgccca ggtctgaagg cgccccagga agccgaggcc ttgagctggg 2400 ' ggggggggcg agggttggag gcacgaactg gatgatccct gagcacaact gggcctaatc 2460 taattagggt gttcccagcc caaagcagcc tgggccattt aacccttcaa gtgcctcact 2520 gaagactcag gggagagatc agettgtact etetecatgg teceecagga gggtteetgg 2580 gtgcccctgg ctcattccca catccagagg ttttgtgtct tcctggcatc taaccctcag 2640 ttgtgctctg tggctggcac agctgccccg tggaggctct tggtaatgta caaggcatca 2700 · gaggtggaca tgggatgggg atacataggg atggagccaa atagcacctc aaggtggggt 2760 gatatacaat aaagettgte accetgaege teagaaagee tacteatgat gateacaatt 2820 qttqacatca ctctqqqaca tqtaqtqaqa ccctaqctca aaacacagac agtaqcttta 2880

agagtcaget tgtgacttaa tactggaact cagggeetaa taggtgetgg gtgatgeteg 2940 cctcactccc tgtttagaga gatctctgcg ctaatctcca ccccagctgg gtgggctgct 3000 ctqtcccctt gagggcagga atgtgtgtct tccatcagag ataggacccg tggtagcagc 3060 aactgctgct ggctgtttct ggaatattaa atgacagtaa tctatcaggc ctgggtgagt 3120 agctaacagg ggtgggggcg tggtctggaa aacgcagata gggtcatagg agccactgca 3180 gcctagatta caccactggg tgttctgtca ctaggccatt ctcaccaagc agtcctcaga 3240 actgggagca ctgttgccag catttaatgc cagcatttaa tgccagcatt aggggaggca 3300 gaggcagaag gatctctctg agttcaaggc catcctgaat ttacataaag agctccaggc 3360 caqccagggt gcgcagtaaa accttgtctc aaaaaacaaa gcatctttag tgaccaggct 3420 tgctccaccc ccagtgacca cggaccccc acccgacgtg cacgtgagcc gcgttggggg 3480 cctggaggac cagctgagtg tgcgctgggt ctcaccacca gctctcaagg atttcctctt 3540 ccaagccaag taccagatcc gctaccgcgt ggaggacagc gtggactgga aggtgcccgt 3600 cccgccccgg acccgccct gaccccgccc cccgcatctg actcctccct caccgtgcag 3660 qtqqtqqatq acqtcaqcaa ccaqacctcc tqccqtctcq cqqqcctqaa qcccqqcacc 3720 gtttacttcg tccaagtgcg ttgtaaccca ttcgggatct atgggtcgaa aaaggcggga 3780 atctggagcg agtggagcca ccccaccgct gcctccaccc ctcgaagtgg tgagcacctc 3840 tccagggctg gctggcccat ggaatcccca atccatcctg ttccttcccc cccacccttt 3900 ttttqaqaca qcqtcttcag qtaqcqcatq ctqqccttaa attcaqtatq taqtcaagga 3960 tgacctcgag ctcctggtct ttttgtctcc acttagagac aatggccagt ggccatcacc 4020 acctttggga gactagccat ggagtctatt tagcctgtca tttggtgaca gatggagtac 4080 aacagtgtga cctcttgtaa gagaactgaa gacaggctgt ttttaacccc aatatcctag 4140 gctctctaga ggttaacttt atataaaata gagactatta cagccagtta tcacatggtc 4200 ccacagaacc ttttgtcaca caacctatag accacagtgc ctgtgcctac cacataaggg 4260 tctctactgc tggcccaccc ctccaaccct taaaaggtaa cctaggcagc cttaatattt 4320 gcaatcctcc tacctcagcc tcttgaatgc tcagaaacca ggcattaacc caagtttctc 4380 ttctctgggt ccctttctta aggtgggagg gcctaaagat gacttccttt gtcctgaaga 4440 ctctccqaqc ccatqqatct qcactctcta atatqaaata tattgcataa aatgtctggc 4500 ctcagtttcc ccacctgtca ggtttaggca gcacagtcgg tccaagacac ttcattattt 4560 qcaggcagta taagaagaag ctcccatccc ccacccgctt cctccggtcc ctaagacaga 4620

atacttctac actgaaactg aactctcgca gacgcatatg ctcactttaa tgatgatgaa 4680 ataatgggga aactgaggct ccgagagatt cctggaggaa gagggtcaaa accagctcca 4740 ggaagctctc cagcccccat ccgggcctct ccaggttctg ggcttggcgg gagtgaacac 4800 · agctgggagg ggctggagcc tgggagcttt ggcccttgct cgtgcccagc acctgcgatt 4860 cttgcacggg agccagcagg cggctgcgtc cgcccgagag actgaagaag ccgggggtag 4920 ggttggaggg aggtaagcag gggctgtggg ggccgaagct tgtgccaggg cctgtcagcg 4980 agtececagt tttatttatg gegtgaggee gatgteetta teegetggee tgetggggga 5040 tggctgcggc tggggattgg acccaagggc tggcttccca ctcagtcctc cagcccactc 5100 ' catgtcacac ccgtgcattc tctgaggctt atcttgggaa cccgcccttg ttctgtgctg 5160 totgtotota titotgtoat toactitico agageettit tittatgett tiaatataac 5220 tacgttttaa aaattgcttt tgtataatgt gtgtgccttc gtgagcgtgc gtgccacaac 5280 acacacqtqa aggttagaga actttgttga gtaggctcct tccaccatgt gggactaggg 5340 ctggcgacaa gagcaattac tgagtcatct cgccagcccc tcacccctca cttcccatcc 5400 tgtttggata gtcataggta atcgaaggta aatcgctggc tttaatttcg tagctatcct 5460 gcctcagcct accaagtgct gtgctaccac gtttgtggga ggggctctcc tcccagtgtc 5520 tgggggtgac acagtcccaa gatctctgct ttctaggtct ttgtcttagt ttgccccttg 5580 ctttgtccgt gtccctagag tctccggccc cacttatcca ttgactggtc tttcctttac 5640 cgaatactcg gttttacctc ccactgattt gactccctcc tttgcttgtc tccatcgccg 5700 * tggcattgcc attectetgg gtgactetgg gtccacacet gacacettte ccaactttee 5760 ccagccgaag ctggtctggt atgggaggcc gccgtcccgc gcgcgcctcc tgctggccgc 5820 gccccaacac tgccgctcca ttctctttag agcgcccggg cccgggcggc ggggtgtgcg 5880 agccqcqgqg cggcgagccc agctcgggcc cggtgcggcg cgagctcaag cagttcctcg 5940 gctggctcaa gaagcacgca tactgctcga accttagttt ccgcctgtac gaccagtggc 6000 * gtgcttggat gcagaagtca cacaagaccc gaaaccaggt aggaaagttg ggggaggctt 6060 gcgtggggg taaaggagca gaggaagaga gagacccggg tgagcagcct ccacaacacc 6120 gcactettet ttecaageae aggaegaggg gateetgeee tegggeagae ggggtgegge 6180 gagaggtaag ggggtctggg tgagtggggc ctacagcagt ctagatgagg ccctttcccc 6240 teetteggtg tigeteaaag ggatetetta gigeteatit caeccaetge aaagageece 6300 🕟 aggitttact gcatcatcaa gitgcigaag ggiccaggci taaigiggcc icitticigc 6360

```
<210> 29
<211> 186
<212> PRT
<213> Unknown
<223> Description of Unknown Organism: Murine NR6
<220>
<221> UNSURE
<222> (136)
<223> Unsure at position 136
<220>
<221> UNSURE
<222> (139)
<223> Unsure at positionn 139
<220>
<221> UNSURE
<222> (162)
<223> Unsure at position 162
<220>
<221> UNSURE
<222> (177)
<223> Unsure at position 177
Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Gln Ala Thr Cys Ser Ile
His Gly Asp Thr Pro Gly Ala Thr Ala Glu Gly Leu Tyr Trp Thr Phe
                                                       30
Asn Gly Arg Arg Leu Pro Ser Glu Leu Ser Arg Leu Leu Asn Thr Ser
```

Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly Ser Arg Gln Gln Ser

Gly Asp Asn Leu Val Cys His Ala Arg Asp Gly Ser Ile Leu Ala Gly

70

Ser	Cys	Leu	Tyr	Val 85	Gly	Leu	Pro	Pro	Glu 90	Lys	Pro	Phe	Asn	Ile 95	Ser	
Cys	Trp	Ser	Arg 100	Asn	Met	Lys	Asp	Leu 105	Thr	Cys	Arg	Trp	Thr 110	Pro	Gly	
Ala	His	Gly 115	Glu	Thr	Phe	Leu	His 120	Thr	Asn	Tyr	Ser	Leu 125	Lys	Tyr	Lys	
Leu	Arg 130	Leu	Val	Arg	Ser	Glu 135	Xaa	His	Met	Xaa	Gly 140	Val	Pro	His	Cys	
Glu 145	Pro	Ser	Leu	Met	Pro 150	Tyr	Pro	Gln	Gly	Pro 155	Gly	Pro	Leu	His	Ser 160	
Leu	Xaa	Asp	Leu	Gly 165	Gly	Ser	His	Gln	Ser 170	Pro	Arg	Leu	Ser	Lys 175	Ile	
Xaa	Cys	Pro	His 180	Thr	Gly	Cys	Pro	Gly 185	Arg							
<213 <213 <213 <220)> 3(l> 35 2> DN 3> Ar)> 3> De	5 NA ctifi					cial	Sequ	ience	e:Muı	rine	5' τ	JTR			
)> 3(cctc	ccggg	ac do	gatco	ggga	g cco	cac							35
<213 <213	0> 31 L> 28 2> DN 3> An	JA	icial	L Sec	quenc	ce										
<220 <223)> }> De	escri	iptic	on of	E Art	ific	cial	Sequ	ience	e:Mur	ine	3 ' t	JTR			
)> 31 cacgo		taga	agttt	a go	ccggc	ag									28
<212 <212)> 32 l> 30 2> PF 3> Ar) ?T	icial	. Sec	quenc	ce										
<220 <223)> }> De	escri	iptic	on of	Art	ific	cial	Sequ	ience	e:Mur	ine	IL-3	3			
)> 32 Val		Ala	Ser 5	Ser	Thr	Thr	Ser	Ile 10	His	Thr	Met	Leu	Leu 15	Leu	

```
20
                                  25
<210> 33
<211> 23
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:3' UTR
Ile Lys Pro Ser Gly Arg Arg Gly Ala Ala Arg Gly Pro Ala Gly Asp
Tyr Lys Asp Asp Asp Lys
             20
<210> 34
<211> 73
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:3' UTR
<400> 34
qatcttgccc tcgggcagac ggggtgcggc gagaggtcct gccggcgact acaaggacga 60
                                                                    73
cgatgacaag tag
<210> 35
<211> 73
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence:3' UTR
<400> 35
aacgggagcc cgtctgcccc acgccgctct ccaggacggc cgctgatgtt cctgctgcta 60
                                                                    73.
ctgttcatcc tag
<210> 36
<211> 27
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:Oligonucleotide
      2199
```

Leu Leu Met Leu Phe His Leu Gly Leu Gln Ala Ser Ile Ser

```
<400> 36
cccacgcttc tcatcggatt ctccctg
                                                               27
<210> 37
<211> 27
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:Oligonucleotide
<400> 37
cagtccacac tgtcctccac tcggtag
                                                               27
<210> 38
<211> 11832
<212> DNA
<213> Unknown
<220>
<223> Description of Unknown Organism: Murine NR6 gene
geggeegetg cagtgattae teacegegtg gegeaceeca eeegegggee getgagtgga 60
tttttccgtg gggggatgtg aagaagttta gggagaactc ttctgcaccg atgggaacta 120
ggaatgcagg gttcggtccc gttccccaaa ggacacacct ctccccataa gcccactcat 180
aagggeteee tgeaegeget eegggacate eecatateea ataceegeag atatgatagt 240
tgagaaggga ccagaggccg gagactccct ccctgccttc tggctttccc cccccctgc 300
acqaaacqaq actacaqcqa tqqqaqaqqt qqcatqaaqq cttaqqqtqq qqatcqqtaq 360
gacccatgca cccagagaaa gggactggtg gcaactttca aactctctgg ggaaggaaga 420
agggetgaaa gaggatgaac gggeteaggt actgeteaat gtgtgtgtgg eggaeeaaag 480
tgggtatggg ggccccgtaa gaggggcggg gaaggtggat aggaaggatc ccggtagact 540
ggaggggatc ctggaaaagc accagggctg cgagctagga acccattcgg agttaagggt 600
acaggatece agatgagggg gtgggaagee tgggaeggge gggaeeagag agggaggtee 660
cacgggctgg tggggaaaga gtggggggct tcgcgcagga ggatgggacg ttcaggagtg 720
gtaactgggc ggaggccggc cgggcggggc gcgcggtgcc cgcgggcggt gggaaggccg 780
cggggcgagc ggcgcattag cgccttgtca atttcggctg ctcagacttg ctccggcctt 900
cgctgtccgc gcccagtgac gcgcgtgagg acccgagccc caatctgcac cccgcagact 960
```

cgcccccgcc ccataccggc gttgcagtca ccgcccgttg cqcgccaccc ccatgcccgc 1020 gggtcgccg ggcccgtcg cccaatccgc gcggcggccg ccgcggccgc tgtcctcgct 1080 qtqqtcqcct ctqttqctct qtqtcctcqq qqtqcctcqq qqcqqatcqq qaqcccgtqa 1140 gtaccgtgcg ccctgctccc cacctcccca gggaagccgg gatccggcgc cccggggggt 1200 agtcgcgggg gatggaagaa ggggcgcgag cgccacctgg acgtcccggg aacaaaggaa 1260 ggcggccctc ggggcgccct cacctgtggg gctcatggca ccaccaccca gcctcccaag 1320 agtaccccgt tatacatcag aggcctctta tctgtatccc ctttgcgagg ctgtctggcc 1380 aggeteagtt tgaaggacat egeagtgtee tgggaceeee eteetteagg gtgetgggae 1440 gcttcggggc gcacgcctgt gtcttggata tcagagcgga agggaagcct ccctggccgg 1500 qqqcqcacqc ttqqqtqcqt tqqqttqqqt gctqqcqcaa aqtqqqqtcc cctcccccat 1560 qaaqtqatga teeecggggg gagggtgggg egttategtg ageeeteetg teegeetgge 1620 atgcggcccg gcgtccctcg ggacttgcct ctccgtgggg tcggcgccgc cccctccccc 1680 ctatagcaga ctccatgctt tggtatcctc gaagtcctct ccactggtgg ggctcacaac 1740 cggtctcatt caggctgcgc tgggttgaga gcctctagcg actgaaattt cggtgaggag 1800 cgagagcaag cgtgtccggg caccgcgagc ccagacttca ttgtctaagg ggcacccagt 1860 gggggtcagc tgccgagaga atcccactgt cccaggagga actcctggcc ttgagccccc 1920 atcacccaac gcacacatcc ccgccaggat gcggtctcca catccagacc ctctctggga 1980 cacacccaaa gacacacaaa agagccccac tggcttatgt cccgtcaccc tgccctccga 2040 egegegetge ageceagatg egtattegea caccategeg gegetegeat tecateetet 2100 acacgcacgc acacacacgc acgcccgcac tcgtggtccc acatttattt cacaggggag 2220 gcaacaccgg ggtacgcata tggttgagtg cactggagat ctttccccac cactctcagg 2280 tagtagtett gtgeagtttg teegeggtgt etgtggaege eeteeegete ttgteagggg 2400 acaggaacct acactcctgc ttgcccaagg cggctgggca ggtgatgtgg tgacacccgg 2460 gacettteeg gggagttggt gttgetgeea ageetgggta gtttttgaat geeaceaata 2520 gcgctaagct ttgtttccgg gcgggctgca gagcaacagg cgaaggtggc ggagtggggg 2580 tggcgcgtgt gttttttctt ttaaggggga gagaaattaa ataagaggtt ctcacacctc 2640 tgcaatctgt ttgtacttac cgtgtgtctt aacacctgac cagccagccg gtgggtcgta 2700

aaagtgtatg caggtaccag cgggacagga gatgggggcc cctggggtat ggctgggatg 2760 gaggccacct tcccgttggc ctttcaggga atctcacact tttccctttt aaaacacatg 2820 gtgttctttt taataacggc agcaactccg cattgggaaa gggggaaata agcttgtata 2880 ggccccggct ttgtggaaag gaggggaaga gggaagaaaa aaggaggggt gtctcctcca 2940 ggcttagggg gctgtcagct gctgctctgt ctagcttggc atgtgtgtgc cccagtcccc 3000 agtggctttg gcccattgtt tgtggaagcc aagagggaga ctggagtcct ctatctctgg 3060 tactccagag tcaggcttct cagtccgagc ccagagaacg tcttccctgt tttatggagg 3120 gaatcaggga agggggtgcc aggtggacta cgttctgctg aggactgtac cagtcgctcg 3180 aaggagaaag cttgggcttg ccccctccc ccctcaagcc acgaagggca gctgctaggc 3240 tagtgtggta aaagggcatt actccccagc caggaccccc cagagagtcc ccttcctggc 3300 cagacaaatg ctggggaggg acagaggggt gtgatcattg cccaggagtg cagacagtgg 3360 ggtcccgggt cgggcagtgc ctcccaccct gctgaggggg gcgcccaggc aggaagcggt 3420 gggtgggccg gggtagagac gctggcacgt cccagttcat gccgaaggaa ttctgaatta 3480 gagggaggat ggatgaatgg gaaataaggg gaggaaaaat ggaaaaagaa gataagtatg 3540 gcctgctcct cctgctcctt cgcacggacg ctgagacctc cgctgagccc tgggacaagc 3600 cccaaatgca actgcgattg caggcttcgc aagacccgcc tcctcccaag gccaaatttg 3660 cctgggagaa gtcattcagg gcccagacta gaaccatgtt ggtgccacct catccatctg 3720 gggcatgaag gaccgtccag ggctgcagtt tagcttctta ataggaacct gggggtgggt 3780 qcaqcctctq ttctccqaqc ctctttqqaa atcqqttttq tttttqtttt tgttttttcc 3840 aatactettt teeteteate eeateeeggg aetgttttee teeetaaggg ttgagageee 3900 tgcagtcttc cctaaccttt tctttgcttc taccccaggg cctttgcaca tggagtccca 3960 cctctcccct tgcccaactg gggctccagc cttactgcat ttggctcttg gtaactgtcc 4020 cagggcctct ctgacacaca gggttgtagc cccagctccc tctcttctcc tccccccttt 4080 ctcttttgct tctgagactt aatttttttc tttttctttt tggctttttg agacagggtt 4140 tetetgtaca geeetggetg eeetggeact cattetgtag accaggetag ceteaaacte 4200 acaaacctac ctgcctctgc ctttccagtg ctggcactaa agatgtgggc caccacaact 4260 agtagttaag tgttttgctg tgtctttatt cctatagtga cctcagttcc tggcatattg 4320 taggcgatgg atggatgaat ggatggatgg atggatggat ggatggttgg atggagcaag 4380 cttgaatcgt cctgagtgaa aaaagagacc tcagagaact gaatggagtt aggttcccag 4440



ggcagcctgg cctgctggtc tcatgggagc tccctgtgaa acttccccca cacctcccac 4500 caccetgeca teetgtgtgg etgacaagaa aggecaatgg ceagatgggg acacagaete 4560 agggaagett ggaatatgtt eccetectea tateetagge ettgttgtee ecctgaggge 4620 ccagcctatg agtagggcag ctgtgggctg ccctaaggtt gggtaggcaa gaagggggtg 4680 gtccctcagg gtgggtcaca ggattgaggt catttccaaa gtggccatca cagtggcct 4740 aggaaatgat tgtggagagt cagaactcct gttgggagtt gtagagggcc ttgcatgtgg 4800 gcttctgtgg ctgtcccttc tcttgtggtc ctttgcacag tcccctcgtg tgtgctggga 4860 tgtgaggagg gcacggggaa aatgaaggct cagcccctca gcttgccctt cacggttcac 4920 ccaacagggc tcacctctcc tctggacagg ctctcactgt atgcacagat tggcctcaca 4980 tttgattccc ttcctttggt ctcctgggat gacaaacatt taccagggta ggattttaca 5040 ttttagatat gtccattctc cagaaacaca cttgtgaggt tagggtatca gtgaaaggac 5100 accaccagga cagacaaaga attggagagg aaggaaattg gtaagccagg ccatgcttga 5160 tggcttatgt gtaatcccag aactctggac gctgaggcag gaggattcca agtttcaaga 5220 caqtqtqttc taqqtaatqa qaccctqtca agaaaaqaaa agaaataaaq agacaaqaaa 5280 atgtttatag getgtgagae agettggtgg gtaaggggca ettgeeteea ateaagatga 5340 cctcagcccc atccctagga atccatggta gaaggagaaa gcaaactcca gctgctgacc 5400 tccatacatg tgctccaatg tgcacacaca cagggagaca taatcaatta ataggatgta 5460 tttgcttaga tttgagtagg catttatgac tgatgtttta aaatttttat ttgattttat 5520 qaaaatatac ctgtttgtat ttggtttggt ttggtttgag ttttgtttat ttgagacagg 5580 gcttctctgt gtagtcctgg ctgtccttgg aactcactct gtagaccagg ctggccttga 5640 actcagaaat ccgcctgctt gtgcttccca agtgcttaga ttaaaggtgt gcactgccat 5700 tcagcaaaat tgcatacttt aaccccagta tttgggaggc agaggcagac taatgtgtga 5760 attccagget agccaaggat acagagtgag accetattet taccetecee ecccaaaace 5820 ccaaaatgta ttttgtgctt gtgtatgtac atgtgtgttg cagcacgtaa atgtccaagg 5880 acaacttgta gaagttetet cegtteacag tetaagteet gaatteaaac taaggteete 5940 aggettagee acagtettet ttatgtactg agecatttea etggeeetgg attgaetgat 6000 gaattaattt ttgagataag gtctcttgta gctctagcta ggctcaaact atgaactccc 6060 ' aaggtcatct tgagctgctg gtactcttgc ttccacccca agtggtggaa tgatactcag 6120 gcagcacttc tctggggaag gggctggcct tggccttgat tttgttgcct cagcttcaat 6180

gagtgcttgg gtctcgttgt ttcttttctt tatctgtgaa atgggtgaac acctgttcaa 6240 gacttcctga ctcttgaaac atccaggcag ggtgagggac ttgaagtggg ctcatcccat 6300 gcctaacaaa gtgtcgtctt tgaccccaga cacagctgta atcagccccc aggaccccac 6360 ccttctcatc ggctcctccc tgcaagctac ctgctctata catggagaca cacctggggc 6420 caccactgag gggctctact ggaccttcaa tggtcgccgc ctgccctctg agctgtcccg 6480 cctccttaac acctccaccc tggccctggc cctggctaac cttaatgggt ccaggcagca 6540 gtcaggagac aatctggtgt gtcacgcccg agacggcagc attctggctg gctcctgcct 6600 ctatgttggc tgtaagtggg gccccagaca ctcagagata gatgggggtt ggcaatgaca 6660 gatttagagc ctgggtcttc tgtcctgggg cagagccatg ggctctcact tgcatgcagg 6720 catggtcata cccagcacag gcattgcaac tctagggaca gctgtggctg cactgtcccc 6780 tgtgtacccc acagctttag aaaagctgtc atgttttcct tgtagtgccc cctgagaagc 6840 cetttaacat cagetgetgg teeeggaaca tgaaggatet caegtgeege tggacaeegg 6900 gtgcacacgg ggagacattc ttacatacca actactccct caagtacaag ctgaggttgg 6960 tacccaqcca agccttqctq tqtqacttct qqcaatactt accttctctq atcaaatatq 7020 ttcctgttta tgaactcaaa agggactctc gcacctccac aggtggtacg gtcaggataa 7080 cacatgtgag gagtaccaca ctgtgggccc tcactcatgc catatcccca aggacctggc 7140 cctcttcact ccctatgaga tctgggtgga agccaccaat cgcctaggct cagcaagatc 7200 tgatgtcctc acactggatg tcctggacgt gggtgagccc ccagtgtcca cctgtgttct 7260 gccctagacc ttatagggcg cctcccccc atcccccag actttttggt tcttctagag 7320 gtcttagcca cagccacggt ggttgcagga cagtggttgt tcataactta atgcaaagac 7380 ctctgcagag aacacctggc ctgaccaccc tccctctcta cagcccaggt gttcagaagg 7500 gagtectagg ggaetgagag gaggegeeca ggtetgaagg egeeecagga ageegaggee 7560 ttgagctggg gggggggcg agggttggag gcacgaactg gatgatccct gagcacaact 7620 gggcctaatc taattagggt gttcccagcc caaagcagcc tgggccattt aacccttcaa 7680 gtgcctcact gaagactcag gggagagatc agcttgtact ctctccatgg tcccccagga 7740 gggttcctgg gtgcccctgg ctcattccca catccagagg ttttgtgtct tcctggcatc 7800 taaccetcag ttgtgetetg tggetggeae agetgeeeeg tggaggetet tggtaatgta 7860 caaggcatca gaggtggaca tgggatgggg atacataggg atggagccaa atagcacctc 7920

aaggtggggt gatatacaat aaagcttgtc accctgacgc tcagaaagcc tactcatgat 7980 gatcacaatt gttgacatca ctctgggaca tgtagtgaga ccctagctca aaacacagac 8040 agtagcttta agagtcagct tgtgacttaa tactggaact cagggcctaa taggtgctgg 8100 gtgatgctcg cctcactccc tgtttagtga gatctctgcg ctaatctcca ccccagctgg 8160 gtgggctgct ctgtcccctt gagggcagga atgtgtgtct tccatcagag ataggacccg 8220 tggtagcagc aactgctgct ggctgtttct ggaatattaa atgacagtaa tctatcaggc 8280 ctgggtgagt agctaacagg ggtgggggcg tggtctggaa aacgcagata gggtcatagg 8340 agccactgca gcctagatta caccactggg tgttctgtca ctaggccatt ctcaccaagc 8400 agtcctcaga actgggagca ctgttgccag catttaatgc cagcatttaa tgccagcatt 8460 aggggaggca gaggcagaag gatctctctg agttcaaggc catcctgaat ttacataaag 8520 agetecagge cagecagggt gegeagtaaa acettgtete aaaaaacaaa geatetttag 8580 tgaccagget tgctccaccc ccagtgacca cggacccccc acccgacgtg cacgtgagcc 8640 gcgttggggg cctggaggac cagctgagtg tgcgctgggt ctcaccacca gctctcaagg 8700 atttcctctt ccaagccaag taccagatcc gctaccgcgt ggaggacagc gtggactgga 8760 aggtgcccgt cccgccccgg acccgccct gaccccgccc cccgcatctg actcctccct 8820 caccgtgcag gtggtggatg acgtcagcaa ccagacctcc tgccgtctcg cgggcctgaa 8880 gcccggcacc gtttacttcg tccaagtgcg ttgtaaccca ttcgggatct atgggtcgaa 8940 aaaggcggga atctggagcg agtggagcca ccccaccgct gcctccaccc ctcgaagtgg 9000 tgagcacctc tccagggctg gctggcccat ggaatcccca atccatcctg ttccttcccc 9060 cccacccttt ttttgagaca gcgtcttcag gtagcgcatg ctggccttaa attcagtatg 9120 tagtcaagga tgacctcgag ctcctggtct ttttgtctcc acttagagac aatggccagt 9180 ggccatcacc acctttggga gactagccat ggagtctatt tagcctgtca tttggtgaca 9240 gatggagtac aacagtgtga cctcttgtaa gagaactgaa gacaggctgt ttttaacccc 9300 aatatcctag gctctctaga ggttaacttt atataaaata gagactatta cagccagtta 9360 tcacatggtc ccacagaacc ttttgtcaca caacctatag accacagtgc ctgtgcctac 9420 cacataaggg tetetactge tggeecacee etceaaceet taaaaggtaa eetaggeage 9480 cttaatattt gcaatcctcc tacctcagcc tcttgaatgc tcagaaacca ggcattaacc 9540 caagtttete ttetetgggt ceetttetta aggtgggagg geetaaagat gaetteettt 9600 qtcctqaaqa ctctccqagc ccatggatct gcactctcta atatgaaata tattgcataa 9660

aatgtctggc ctcagtttcc ccacctgtca ggtttaggca gcacagtcgg tccaagacac 9720 ttcattattt gcaggcagta taagaagaag ctcccatccc ccacccgctt cctccggtcc 9780 ctaagacaga atacttctac actgaaactg aactctcgca gacgcatatg ctcactttaa 9840 ' tgatgatgaa ataatgggga aactgaggct ccgagagatt cctggaggaa gagggtcaaa 9900 accageteca ggaagetete cageeceeat eegggeetet eeaggttetg ggettggegg 9960 gagtgaacac agctgggagg ggctggagcc tgggagcttt ggcccttgct cgtgcccagc 10020 acctgcgatt cttgcacggg agccagcagg cggctgcgtc cgcccgagag actgaagaag 10080 ccgggggtag ggttggaggg aggtaagcag gggctgtggg ggccgaagct tgtgccaggg 10140; cctgtcagcg agtccccagt tttatttatg gcgtgaggcc gatgtcctta tccgctggcc 10200 tgctggggga tggctgcggc tggggattgg acccaagggc tggcttccca ctcagtcctc 10260 cageceacte catgteacae eegtgeatte tetgaggett atettgggaa eeegeeettg 10320 ttctgtgctg tctgtctcta tttctgtcat tcactttccc agagcctttt ttttatgctt 10380 ttaatataac tacgttttaa aaattgcttt tgtataatgt gtgtgccttc gtgagcgtgc 10440 gtgccacaac acacacgtga aggttagaga actttgttga gtaggctcct tccaccatgt 10500 gggactaggg ctggcgacaa gagcaattac tgagtcatct cgccagcccc tcacccctca 10560 cttcccatcc tgtttggata gtcataggta atcgaaggta aatcgctggc tttaatttcg 10620 tagctatect geeteageet accaagtget gtgetaceae gtttgtggga ggggetetee 10680 tcccagtgtc tgggggtaca cagtcccaag atctctgctt tctaggtctt tgtcttagtt 10740° tgccccttgc tttgtccgtg tccctagagt ctccggcccc acttagtctc cattgatttc 10800 ctttctgacc gaatactcgg ttttacctcc cactgatttg actccctcct ttgcttgtct 10860 ccatcgccgt ggcattgcca ttcctctggg tgactctggg tccacacctg acacctttcc 10920 caactttccc cagccgaagc tggtctggta tgggaggccg ccgtcccgcg cgcgcctcct 10980 gctggccgcg ccccaacact gccgctccat tctctttaga gcgcccgggc ccgggcggcg 11040 % gggtgtgcca gccgcggggc ggcgagccca gctcgggccc ggtgcggcgc gagctcaagc 11100 agttectegg etggeteaag aageaegeat aetgetegaa eettagttte egeetgtaeg 11160 accagtggcg tgcttggatg cagaagtcac acaagacccg aaaccaggta ggaaagttgg 11220 gggaggcttg cgtgggggt aaaggagcag aggaagaga agacccgggt gagcagcctc 11280 cacaacaccg cactettett tecaageaca ggacgagggg atcetgeect egggeagaeg 11340 ' gggtgcggcg agaggtaagg gggtctgggt gagtggggcc tacagcagtc tagatgaggc 11400

cctttcccct ccttcggtgt tgctcaaagg gatctcttag tgctcatttc acccactgca 11460 aagagcccca ggttttactg catcatcaag ttgctgaagg gtccaggctt aatgtggcct 11520. cttttctgcc ctcaggtcct gccggctaaa ctctaaggat aggccatcct cctgctgggt 11580 cagacctgga ggctcacctg aattggagcc cctctgtacc atctgggcaa caaagaaacc 11640 taccagaggc tgggcacaat gagctcccac aaccacagct ttggtccaca tgatggtcac 11700 acttggatat accccagtgt gggtagggtt ggggtattgc agggcctccc aagagtctct 11760 ttaaataaat aaaggagttg ttcaggtccc gatggccagt gtgtttgggg cctatgtgct 11820. 11832 ggggtggggg ga <210> 39 <211> 26 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Murine peptide <400> 39 Val Ile Ser Pro Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Gln Ala Thr Cys Ser Ile His Gly Asp Thr Pro 20 <210> 40 <211> 21 <212> DNA <213> Oligonucleotide Sequence <400> 40 21 gtccaagtgc gttgtaaccc a <210> 41 <211> 24 <212> DNA <213> Oligonucleotide Sequence <400> 41 24 gctgagtgtg cgctgggtct cacc <210> 42 <211> 18 <212> DNA

<213> Oligonucleotide Sequence

<400> 42 ggctccactc gctccaga

18

<210> 43 <211> 2079 <212> DNA <213> Unknown <220> <221> CDS <222> (513)..(1775) <220> <223> Description of Unknown Organism: Nucleotide Sequence of NR6 <400> 43 gcggtatttg tgtttcaaat ctatctacag aaaagattga gaaccagaag cccttttcgt 60 tttttgaaag ctagctgact cactgttcaa gaaaggagaa cactttcaat tatgctgttt 120 gactgcagtg tcagggatcc aaaggaaatg actccatccc ttccctttca tcccaacctc 180 agtgacagca aattetgatg tgactgaggg ttggettgtg aaggagteat taggaaatte 240 tgcctaagcc atagcgcgat gagaaggatg tatcctatgg tggtgatttt cctgtgcccc 300 ctcagaggaa agttgtcaga tgagcaggtg gagtattcta tagcaaacag caagctaata 360 ggttacacag ataactctct gactttgcct tacagaacct gtgctattga ccttagggca 420 aggttcatgc tcagggggcc aactctgtgg gttaggattt gagtttaagc agcttctgct 480 catatttcag cgcccccggc agcgccggcc cc atg ccc gcc ggc cgc cgg ggc 533 Met Pro Ala Gly Arg Arg Gly 581 Pro Ala Ala Gln Ser Ala Arg Arg Pro Pro Pro Leu Leu Pro Leu Leu 629 ctg ctc tgc gtc ctc ggg gcg ccg cga gcc gga tca gga gcc cac aca Leu Leu Cys Val Leu Gly Ala Pro Arg Ala Gly Ser Gly Ala His Thr 25 30

gct	gtg	atc	agt	ccc	cag	gat	ccc	acg	ctt	ctc	atc	ggc	tcc	tcc	ctg	677
Ala 40	Val	Ile	Ser	Pro	Gln 45	Asp	Pro	Thr	Leu	Leu 50	Ile	Gly	Ser	Ser	Leu 55	
ctg	gcc	acc	tgc	tca	gtg	cac	gga	gac	cca	cca	gga	gcc	acc	gcc	gag	725
Leu	Ala	Thr	Суѕ	Ser 60	Val	His	Gly	Asp	Pro 65	Pro	Gly	Ala	Thr	Ala 70	Glu	
ggc	ctc	tac	tgg	acc	ctc	aat	ggg	cgc	cgc	ctg	ccc	cct	gag	ctc	tcc	773
Gly	Leu	Tyr	Trp 75	Thr	Leu	Asn	Gly	Arg 80	Arg	Leu	Pro	Pro	Glu 85	Leu	Ser	
cgt	gta	ctc	aac	gcc	tcc	acc	ttg	gct	ctg	gcc	ctg	gcc	aac	ctc	aat	821
Arg	Val	Leu 90	Asn	Ala	Ser	Thr	Leu 95	Ala	Leu	Ala	Leu	Ala 100	Asn	Leu	Asn	
ggg	tcc	agg	cag	cgg	tcg	ggg	gac	aac	ctc	gtg	tgc	cac	gcc	cgt	gac	869
Gly	Ser 105	Arg	Gln	Arg	Ser	Gly 110	Asp	Asn	Leu	Val	Cys 115	His	Ala	Arg	Asp	
ggc	agc	atc	ctg	gct	ggc	tcc	tgc	ctc	tat	gtt	ggc	ctg	ccc	cca	gag	917
Gly 120	Ser	Ile	Leu	Ala	Gly 125	Ser	Cys	Leu	Tyr	Val 130	Gly	Leu	Pro	Pro	Glu 135	
aaa	ccc	gtc	aac	atc	agc	tgc	tgg	tcc	aag	aac	atg	aag	gac	ttg	acc	965
Lys	Pro	Val	Asn	Ile 140	Ser	Cys	Trp	Ser	Lys 145	Asn	Met	Lys	Asp	Leu 150	Thr	
tgc	cgc	tgg	acg	cca	ggg	gcc	cac	ggg	gag	acc	ttc	ctc	cac	acc	aac	1013
Cys	Arg	Trp	Thr 155	Pro	Gly	Ala	His	Gly 160	Glu	Thr	Phe	Leu	His 165	Thr	Asn	
tac	tcc	ctc	aag	tac	aag	ctt	agg	tgg	tat	ggc	cag	gac	aac	aca	tgt	1061
Tyr	Ser	Leu 170	Lys	Tyr	Lys	Leu	Arg 175	Trp	Tyr	Gly	Gln	Asp 180	Asn	Thr	Cys	
gag	gag	tac	cac	aca	gtg	ggg	ccc	cac	tcc	tgc	cac	atc	ccc	aag	gac	1109
Glu	Glu 185	Tyr	His	Thr	Val	Gly 190	Pro	His	Ser	Cys	His 195	Ile	Pro	Lys	Asp	
ctg	gct	ctc	ttt	acg	ccc	tat	gag	atc	tgg	gtg	gag	gcc	acc	aac	cgc	1157
Leu 200	Ala	Leu	Phe	Thr	Pro 205	Tyr	Glu	Ile	Trp	Val 210	Glu	Ala	Thr	Asn	Arg 215	
cta	aac	tet	acc	cac	taa	gat	αta	ctc	aca	cta	gat	atc	cta	gat	ata	1205

Leu	Gly	Ser	Ala	Arg 220	Ser	Asp	Val	Leu	Thr 225	Leu	Asp	Ile	Leu	Asp 230	Val	
gtg	acc	acg	gac	ccc	ccg	ccc	gac	gtg	cac	gtg	agc	cgc	gtc	ggg	ggc	1253
Val	Thr	Thr	Asp 235	Pro	Pro	Pro	Asp	Val 240	His	Val	Ser	Arg	Val 245	Gly	Gly	
ctg	gag	gac	cag	ctg	agc	gtg	cgc	tgg	gtg	tcg	cca	ccc	gcc	ctc	aag	1301
Leu	Glu	Asp 250	Gln	Leu	Ser	Val	Arg 255	Trp	Val	Ser	Pro	Pro 260	Ala	Leu	Lys	
gat	ttc	ctc	ttt	caa	gcc	aaa	tac	cag	atc	cgc	tac	cga	gtg	gag	gac	1349
Asp	Phe 265	Leu	Phe	Gln	Ala	Lys 270	Tyr	Gln	Ile	Arg	Tyr 275	Arg	Val	Glu	Asp	•
agt	gtg	gac	tgg	aag	gtg	gtg	gac	gat	gtg	agc	aac	cag	acc	tcc	tgc	1397
Ser 280	Val	Asp	Trp	Lys	Va1 285	Val	Asp	Asp	Val	Ser 290	Asn	Gln	Thr	Ser	Cys 295	
cgc	ctg	gcc	ggc	ctg	aaa	ccc	ggc	acc	gtg	tac	ttc	gtg	caa	gtg	cgc	1445
Arg	Leu	Ala	Gly	Leu 300	Lys	Pro	Gly	Thr	Val 305	Tyr	Phe	Val	Gln	Val 310	Arg	
tgc	aac	ccc	ttt	ggc	atc	tat	ggc	tcc	aag	aaa	gcc	ggg	atc	tgg	agt	1493
Cys	Asn	Pro	Phe 315	Gly	Ile	Tyr	Gly	Ser 320	Lys	Lys	Ala	Gly	Ile 325	Trp	Ser	
gag	tgg	agc	cac	ccc	aca	gcc	gcc	tcc	act	ccc	cgc	agt	gag	cgc	ccg	1541
Glu	Trp	Ser 330	His	Pro	Thr	Ala	Ala 335	Ser	Thr	Pro	Arg	Ser 340	Glu	Arg	Pro	
ggc	ccg	ggc	ggc	ggg	gcg	tgc	gaa	ccg	cgg	ggc	gga	gag	ccg	agc	tcg	1589
Gly	Pro 345	Gly	Gly	Gly	Ala	Cys 350	Glu	Pro	Arg	Gly	Gly 355	Glu	Pro	Ser	Ser	
ggg	ccg	gtg	cgg	cgc	gag	ctc	aag	cag	ttc	ctg	ggc	tgg	ctc	aag	aag	1637
Gly 360	Pro	Val	Arg	Arg	Glu 365	Leu	Lys	Gln	Phe	Leu 370	Gly	Trp	Leu	Lys	Lys 375	•
cac	gcg	tac	tgc	tcc	aac	ctc	agc	ttc	cgc	ctc	tac	gac	cag	tgg	cga	1685
His	Ala	Tyr	Cys	Ser 380	Asn	Leu	Ser	Phe	Arg 385	Leu	Tyr	Asp	Gln	Trp 390	Arg	
gcc	tgg	atg	cag	aag	tcg	cac	aag	acc	cgc	aac	cag	gac	gag	ggg	atc	1733
Ala	Trp	Met	Gln 395	Lys	Ser	His	Lys	Thr 400	Arg	Asn	Gln	Asp	Glu 405	Gly	Ile	

ctg ccc tcg ggc aga cgg ggc acg gcg aga ggt cct gcc aga
Leu Pro Ser Gly Arg Arg Gly Thr Ala Arg Gly Pro Ala Arg
410 415 420

1775 -

taagetgtag gggeteagge caccetecet geeaegtgga gaegeagag cegaacecaa 1835
actggggeea cetetgtace etcaetteag ggeaeetgag ceaeeeteag caggagetgg 1895
ggtggeeeet gageteeaac ggeeataaca getetgaete ceaegtgagg ceaeeetttgg 1955
gtgeaeecea gtgggtgtgt gtgtgtgt gagggttggt tgagttgeet agaacecetg 2015
ceagggetgg gggtgagaag gggagteatt acteeceatt acetagggee cetecaaaag 2075
atce 2079

<210> 44

<211> 421

<212> PRT

<213> Unknown

<220>

<223> Description of Unknown Organism: Amino Acid Sequence of NR6

<400> 44

Met Pro Ala Gly Arg Arg Gly Pro Ala Ala Gln Ser Ala Arg Arg Pro 1 5 10 15

Pro Pro Leu Leu Pro Leu Leu Leu Cys Val Leu Gly Ala Pro Arg
20 25 30

Ala Gly Ser Gly Ala His Thr Ala Val Ile Ser Pro Gln Asp Pro Thr 35 40 45

Leu Leu Ile Gly Ser Ser Leu Leu Ala Thr Cys Ser Val His Gly Asp 50 55 60

Pro Pro Gly Ala Thr Ala Glu Gly Leu Tyr Trp Thr Leu Asn Gly Arg
65 70 75 80

Arg Leu Pro Pro Glu Leu Ser Arg Val Leu Asn Ala Ser Thr Leu Ala 85 90 95

Leu Ala Leu Ala Asn Leu Asn Gly Ser Arg Gln Arg Ser Gly Asp Asn 100 105 110

Leu Val Cys His Ala Arg Asp Gly Ser Ile Leu Ala Gly Ser Cys Leu 115 120 125

Tyr Val Gly Leu Pro Pro Glu Lys Pro Val Asn Ile Ser Cys Trp Ser

	130					135				,	140				
Lys 145	Asn	Met	Lys	Asp	Leu 150	Thr	Cys	Arg	Trp	Thr 155	Pro	Gly	Ala	His	Gly 160
Glu	Thr	Phe	Leu	His 165	Thr	Asn	Tyr	Ser	Leu 170	Lys	Tyr	Lys	Leu	Arg 175	Trp
Tyr	Gly	Gln	Asp 180	Asn	Thr	Cys	Glu	Glu 185	Tyr	His	Thr	Val	Gly 190	Pro	His
Ser	Cys	His 195	Ile	Pro	Lys	Asp	Leu 200	Ala	Leu	Phe	Thr	Pro 205	Tyr	Glu	Ile
Trp	Val 210	Glu	Ala	Thr	Asn	Arg 215	Leu	Gly	Ser	Ala	Arg 220	Ser	Asp	Val	Leu
Thr 225	Leu	Asp	Ile	Leu	Asp 230	Val	Val	Thr	Thr	Asp 235	Pro	Pro	Pro	Asp	Val 240
His	Val	Ser	Arg	Val 245	Gly	Gly	Leu	Glu	Asp 250	Gln	Leu	Ser	Val	Arg 255	Trp
Val	Ser	Pro	Pro 260	Ala	Leu	Lys	Asp	Phe 265	Leu	Phe	Gln	Ala	Lys 270	Tyr	Gln
Ile	Arg	Туг 275	Arg	Val	Glu	Asp	Ser 280	Val	Asp	Trp	Lys	Val 285	Val	Asp	Asp
Val	Ser 290	Asn	Gln	Thr	Ser	Cys 295	Arg	Leu	Ala	Gly	Leu 300	Lys	Pro	Gly	Thr
Val 305	Tyr	Phe	Val	Gln	Val 310	Arg	Cys	Asn	Pro	Phe 315	Gly	Ile	Tyr	Gly	Ser 320
Lys	Lys	Ala	Gly	Ile 325	Trp	Ser	Glu	Trp	Ser 330	His	Pro	Thr	Ala	Ala 335	Ser
Thr	Pro	Arg	Ser 340	Glu	Arg	Pro	Gly	Pro 345	Gly	Gly	Gly	Ala	Cys 350	Glu	Pro
Arg	Gly	Gly 355	Glu	Pro	Ser	Ser	Gly 360	Pro	Val	Arg	Arg	Glu 365	Leu	Lys	Gln
Phe	Leu 370	Gly	Trp	Leu	Lys	Lys 375	His	Ala	Tyr	Cys	Ser 380	Asn	Leu	Ser	Phe
Arg 385	Leu	Tyr	Asp	Gln	Trp 390	Arg	Ala	Trp	Met	Gln 395	Lys	Ser	His	Lys	Thr 400
Arg	Asn	Gln	Asp	Glu 405	Gly	Ile	Leu	Pro	Ser 410	Gly	Arg	Arg	Gly	Thr 415	Ala
Arg	Gly	Pro	Ala 420	Arg											

<210> 45 <211> 23 <212> DNA <213> Artificial	
<220> <223> Description of Artificial Sequence: Fwd Primer	-
<400> 45 tgccccaga gaaacccgtc aac	23
<210> 46 <211> 25 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Rev Primer	
<400> 46 cgtgagtaca tcggagcggg cagag	25
<210> 47 <211> 31 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<400> 47 tcaggcgcgc cttgcccaca cagctgtgat c	31.
<210> 48 <211> 30 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<400> 48 tcagggcgcg ccttatctgg caggacctct	30
<210> 49 <211> 25 <212> DNA <213> Artificial Sequence	

```
<220>
<223> Description of Artificial Sequence: Oligonucleotide
<400> 49
                                                                    25
tcaggcgcgc ctgcccgccg gccgc
<210> 50
<211> 28
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence: Oligonucleotide
<400> 50
                                                                    28
ataaggcgcg ccctggcagg acctctcg
<210> 51
<211> 31
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence: Oligonucleotide
<400> 51
tcaggcgcgc cttgcccaca cagctgtgat c
                                                                    31
<210> 52
<211> 30
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Oligonucleotide
<400> 52
                                                                    30
tcagggcgcg ccttatctgg caggacctct
<210> 53
<211> 25
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence: Oligonucleotide
<400> 53
```

B

tcaggcgcgc ctgcccgccg gccgc	25 _.
<210> 54 <211> 28 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<400> 54	

28

ataaggcgcg ccctggcagg acctctcg